SuperNovaSchool
LEARN TO BE DISTINCT

Unit 3 Revision Worksheet

Subject: Science **Grade: VII Sec:**

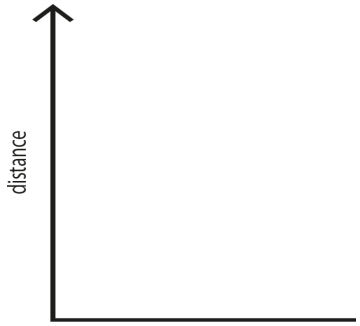
Name: _____ **Date:** _____

Q.1 a. Write the equation that links speed, distance and time. Draw formula triangle.

_____

b. On the axes below, sketch a distance/time graph for a train that:

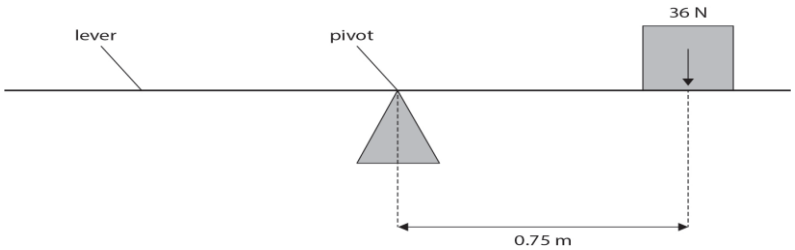
- moves at a constant speed away from a station, and then
- stops at another station
- Then continues with a slow constant speed



Q.2 The following questions are related to speed.

a) If a rider has approximate speed of 1200 km/h and the distance he has to cover is 3600km. Calculate the time he will take to reach the destination. Show working and mention units.

Q.3 A box has a weight of 36 N. The box is placed on a lever at a distance of 0.75 m from the pivot.



a. Calculate the **moment** caused by the box on the lever.

b. Another box has a weight of 27 N.

If this box is placed on the other side of the pivot, the lever can be balanced.

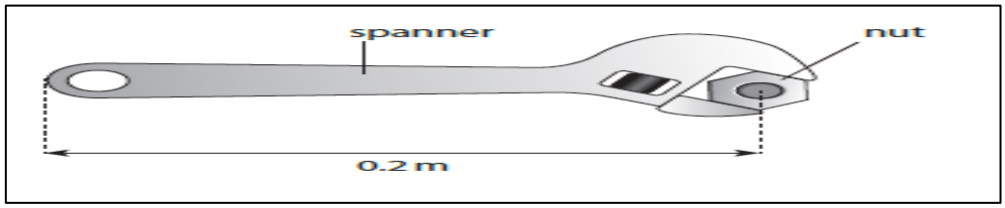
Calculate the **distance** from the pivot where the 27 N box should be placed to balance the lever.

_____ m

Q.4. lever causes turning effects of force which help to do work.

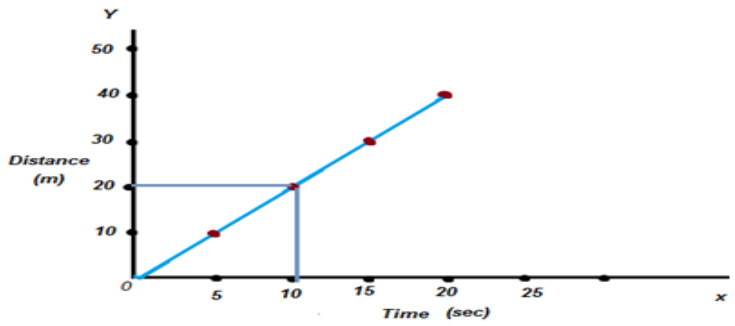
a) What name is given to the turning effect of a force? Circle **one** word.
(moment / rotate/ revolve)

b) A spanner will turn a nut. The nut needs a moment of 10 Nm to turn. The spanner is 0.2 m long. Calculate the **minimum** force that must be exerted on the spanner. Show your working and give the unit.



c) What are factors which effect moment.

Q6. Look at the distance/time graph



Calculate the speed show the working.

At 5sec

At 15 sec

What conclusion do you make about speed of the car? Pick one option.

1.It is constant

2. It is changing

Q6. Pressure is defined as force acting on a unit area.

a) A large rock has a weight of 20 N. The area of one end of the rock is 30 cm^2. Calculate the pressure the rock exerts on the ground. Show your working.

b) Explain with an example that how surface area of an object is related to pressure.

Q7. Fill in the given table

	SI unit	Equation
1. Speed		
2. Moment		
3. Pressure		